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- (71) Applicant (*for all designated States except US*): **REPRO-CELL INC.** [JP/JP]; The Imperial Hotel Tower 6F, 1-1-1, Uchisaiwaicho, Chiyoda-ku, Tokyo 100-0011 (JP).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): **NAKAUCHI, Hiromitsu** [JP/JP]; 4-6-1, Shiroganedai, Minato-ku, Tokyo 108-8639 (JP). **IWAMA, Atsushi** [JP/JP]; 4-6-1, Shiroganedai, Minato-ku, Tokyo 108-8639 (JP).
- (74) Agents: **YAMAMOTO, Shusaku** et al.; Fifteenth Floor, Crystal Tower, 2-27, Shiromi 1-chome, Chuo-ku, Osaka-shi, Osaka 540-6015 (JP).
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(54) Title: EXPANSION AGENTS FOR STEM CELLS

(57) **Abstract:** The present invention relates to a method and substance for maintaining the pluripotency and self-replication ability of a stem cell, such as a hematopoietic stem cell, while keeping it undifferentiated. Specifically, the present invention provides a composition for maintaining the expansion or pluripotency of a stem cell, comprising active STAT5, and a method using the same. STAT5 may be in the form of a protein or a nucleic acid. The composition may contain a cellular physiologically active substance (e.g., SCF, TPO, Flt-3L, etc.). The present invention also relates to a cell, a tissue and an organ prepared from the stem cell.

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